

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2005/003417

## A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl.<sup>7</sup> B23K26/20

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int. Cl.<sup>7</sup> B23K26/20

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Jitsuyo Shinan Toroku Koho	1996-2005
Kokai Jitsuyo Shinan Koho	1971-2005	Toroku Jitsuyo Shinan Koho	1994-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 02/060634 A1 (Independent Administrative Institution National Institute for Materials Science), 08 August, 2002 (08.08.02), Full text; all drawings & US 2004/0026381 A1	1-4
A	JP 2002-321073 A (Nissan Motor Co., Ltd.), 05 November, 2002 (05.11.02), Claims; column 8, line 37 to column 16, line 15; Figs. 1 to 17 & EP 1238744 A1	1-4
A	US 5651903 A (TRW Inc.), 29 July, 1997 (29.07.97), Full text; all drawings (Family: none)	1-4

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex.

\* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
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- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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- "&" document member of the same patent family

Date of the actual completion of the international search  
23 May, 2005 (23.05.05)Date of mailing of the international search report  
07 June, 2005 (07.06.05)Name and mailing address of the ISA/  
Japanese Patent Office

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E, A	JP 2004-90068 A (Independent Administrative Institution National Institute for Materials Science), 25 March, 2004 (25.03.04), Full text; all drawings (Family: none)	1-4